

Realization of a Functional Photo-Realistic 3D City Geographic Information System (3D GIS), the Place of Google Earth and Arc Scene.

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SUMMARY

3D city Geographic Information System (3D GIS) is swiftly evolving, thus, efforts have been on how to create 3D City Models that do not only present real-world visualization but also allow for different kinds of spatial analysis and measurements. Linking 3D photo-realistic models and 3D GIS opens up for a new paradigm for greater understanding, communication and analysis on the real world. We live in a 3D world; interpreting and analyzing data in 2D abstraction is not optimal contemporarily. 3D City GML has long presented a good standards and technology to the realization of 3D functional City GIS Models. City GML not only models the graphical visualization of a city but also incorporates the object semantics and thematic properties. In this paper, we present a quality realization of a functional photo-realistic 3D City Geographical Information System of the University Nigeria Enugu campus (UNEC), Enugu, Nigeria using Google Sketch-up and Arc scene technologies. The realized 3D photo-realistic model does not only present the photo-realistic visualization of the objects but also incorporates the objects, semantics, spatial, thematic and aspatial attributes.

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